

# System and Method for Analyzing the Performance of Multiple Transportation Streams of Streaming Media in Packet-Based Networks

## Abstract

Streaming media network parameters are measured using an electronic system and displayed directly to a user or transmitted via an electronic interface such as an existing system network conduit (i.e. Ethernet, USB, or other packet-based architectures), either in or out-of-band. A scalable hardware and/or software compute engine filters and reduces network parameters to simplify tracking the instantaneous and long term streaming media performance of the network. Hence, the entire set of active media streams is continuously monitored concurrently, thereby providing the ability to detect impairments as well as predict impending impairments. The prediction of impairments gives rise to the ability to protect the end-user of the streaming media from experiencing any impairments. In one example, an existing packetized network conduit containing streaming media is tapped to concur-

rently and objectively analyze the streaming media streams, producing statistics (such as delay factor and media loss rate) and alarm-type events according to predetermined rules. Tapping the existing packetized network in multiple points provides comparison points and assists in pinpointing the source(s) of the impairment(s).